



AMENDMENT UNDER 35 U.S.C. § 1.111
U. S. Application No. 10/028,919

ATTORNEY DOCKET NO. Q67817

AMENDMENTS TO THE DRAWINGS

Please find attached annotated Figs. 1-3.

Attachment: Annotated Sheet(s)

REMARKS

As a preliminary matter, the drawings are objected to for the reasons set forth on page 2 of the present Office Action. Applicants submit the attached annotated figures, and believe that the Examiner's objections to the drawings are obviated. Please note that the y-axis of Fig. 4 represents photo current in micro Amperes.

Claims 1-8 are all the claims pending in the present application. Claims 4 and 5 contain allowable subject matter, and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 1-3 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Adams (U.S. Patent No. 6,016,374) in view of Epworth (U.S. Patent No. 5,513,030). Claim 6 remains rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Adams in view of Epworth, further in view of Doerr (U.S. Patent No. 5,809,184). Finally, claims 7 and 8 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Adams in view of Epworth, and further in view of Ishikawa (US Patent No. 5,612,807).

§103(a) Rejections (Adams/Epworth) - Claims 1-3

Claims 1-3 are rejected for the same reasons set forth in the previous Office Action, and the Examiner adds a few new arguments in the *Response to Arguments* section of the Office Action.

With respect to independent claim 1, Applicants previously provided descriptions of the applied references and argued that neither of the applied references disclose or suggest at least, "Demultiplexing the signals, delaying the signals individually between channels and

multiplexing the signals again for the next step, First remodulating the multiplexed signal with a clock signal of high frequency, monitoring the remodulated signal with at least one low frequency photodetector unit, and measuring, analyzing the photocurrent of the photodetector, adjusting via an electronic circuit the time delays between the channels.”

Further, Applicants previously argued that one skilled in the art would not have been led to combine Epworth with Adams to arrive at the present invention. That is, Applicants previously argued that one of ordinary skill in the art, in view of Adams, would only see that it is possible to pre-shape transmission signals. There is no content that would teach or suggest to a person to use the invention to synchronize WDM channels with different wavelengths in one single step. In view of Adams, one of ordinary skill in the art would look for a WDM disclosure and not for a soliton (Epworth) transmission which is again related to a single wavelength.

In response, the Examiner alleges:

Regarding claims 1 and 3, Applicant argues that the transmitter of Adams “does not work with a wavelength grid signal”; “The source is a pulsed laser source (single wavelength)”. However, Adams clearly discloses a WDM (fig.1, WDM 110) to demultiplex the signal, and the demultiplexed signal comprising multiple wavelengths (fig. 1, $\lambda_1, \dots, \lambda_n$), which clearly indicates that the system of Adams works with a wavelength grid signal. Applicant further argues, “Epworth does not deal with a WDM system”. However, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F. 2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, Adams discloses a WDM system, Epworth is cited to show that it is well known in the art to monitor an optical signal output from a modulator with a low frequency detector, and it would have been obvious for one of ordinary skill in the art at the time when the invention was made to incorporate in Adams a low frequency photodetector, such as the one disclosed by Epworth, in order to measure the average optical

output power of the modulator. Adams also clearly discloses to “delay” (column 2, lines 45-47) each of the wavelength components individually. It is clear that the combination of Adams and Epworth discloses all the claimed limitations in the claims. Therefore, the rejections of claims 1 and 3 still stand.

In response, Applicants maintain the previously submitted arguments, as Applicants believe that the previously submitted arguments demonstrate the present invention, as recited in claims 1 and 3, is patentably distinguishable over the applied references.

With respect to independent claim 2, Applicants previously argued that neither Adams nor Epworth, either alone or in combination, discloses or suggests at least "remodulating the multiplexed signal in a first modulator with a clock signal of high frequency" and "monitoring a part of the remodulated signal in a second modulator with at least one low frequency photodetector unit," as recited in independent claim 2.

In response, the Examiner alleges:

Regarding claim 2, the modified claim recites, “monitoring a part of the remodulated signal in a second modulator ...”. The claim language does not specify the type of modulation, the equalizer of Adams reads on the claimed “second modulator” since the signal is “modulated” (combined with the loop back signals and tunably filtered) and detected in the equalizer. Therefore, the combination of Adams and Epworth discloses all the claimed limitations in claim 2 and the rejection of claim 2 still stands.

In response, Applicants submit that the Examiner still has demonstrated that either of the applied references, including Adams, discloses or suggests at least the specific operation of monitoring a part of the remodulated signal. Further, the applied references do not disclose or suggest that the above-mentioned operation is performed in a second modulator with at least one

low frequency photodetector unit. The specific features discussed above are clearly not satisfied by the applied references. At least based on the foregoing, Applicants submit that independent claim 2 is patentably distinguishable over Adams and Epworth.

§103(a) Rejections (Adams/Epworth/Doerr) - Claim 6

Applicants submit that claim 6 is patentable by virtue of its dependency from claim 3, as long as Doerr does not make up for the deficiencies of Adams and Epworth.

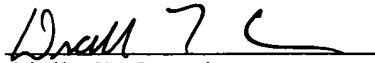
§103(a) Rejections (Adams/Epworth/Ishikawa) - Claims 7 and 8

Applicants submit that claim 6 is patentable by virtue of its dependency from claim 3, as long as Ishikawa does not make up for the deficiencies of Adams and Epworth.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Diallo T. Crenshaw
Registration No. 52,778

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: September 15, 2006